CUG

Newsletter

July 1994

In this issue…

- ***CD-ROM: Exploding the myth***
- ***Surfing the Internet***
- ***World Wide Web explained***
- ***Complete Amiga C reviewed***
- ***LineLink 144e FaxModem***

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Newsletter
Contents

Commodore Users
Group of Ireland

Volume 6 Number 3
July 1994

Editorial	*Eddy Carroll*	2
Interactive CD: Exploding the myth	*Thomas Rolfs*	5
Complete Amiga C reviewed	*Colum Keane*	8
Classified ads	*Secretary*	10
Proposal to change meeting times	*The committee*	11
Surfing the 'net with your Amiga	*Colin Dalton*	13
LineLink 144e FaxModem	*Kieran Tully*	18
Classified ads	*Secretary*	20
The World Wide Web	*Karl Jeacle*	21
Diary Dates	*Secretary*	25
CUGI Library	*Magnus Byne*	26

The deadline for articles for the next Newsletter is 14 October 1994.

Editorial

Welcome to the July (yes, July!) Newsletter. I hope you all had a good summer's break. I know I did, though it wasn't helped by the continuing lack of news on Commodore's future.

Of course, there have been plenty of rumours on the usual networks; some sound very plausible, while others are completely off the wall. At the time of writing (end of August), it looks like an official announcement will be made around September 7 to say which group has been successful in acquiring the rights to the Amiga.

The smart money is currently on Commodore UK's management buyout, though the Creative Electronics consortium in the US (headed by former Commodore US president Jim Dionne) is also in with a good chance. At this stage, it seems unlikely that Samsung, Philips, or Amstrad will win the bid. More news as it arrives.

In this exciting issue...

After a distinct lack of articles over the past two months, I received a wild influx of manuscripts hours before we went to press. As a result, you should find quite a few interesting things to read about. There is something of a comms theme, with articles explaining how to get connected to Internet, how to make best use of the World Wide Web, and even a review of a new low cost high-speed modem.

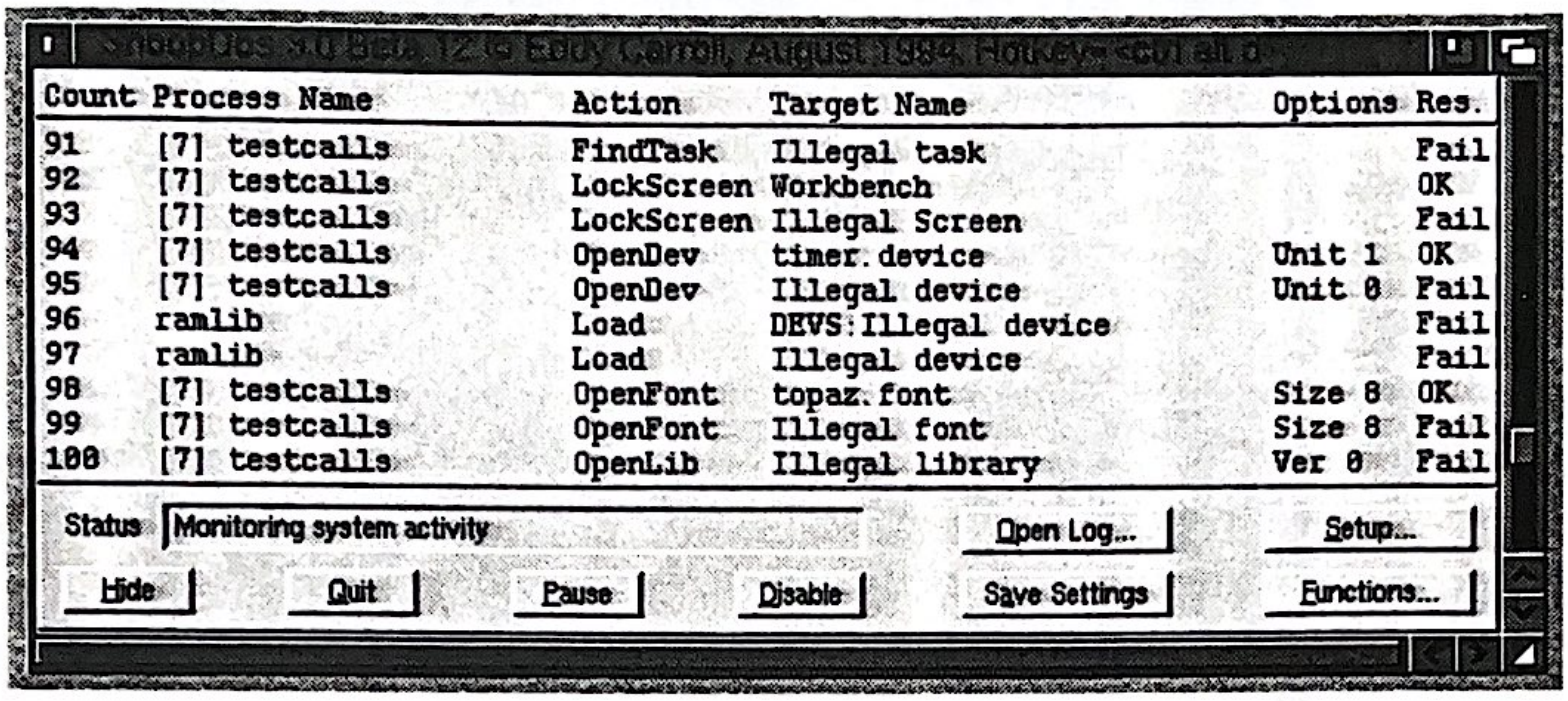
You'll also find a review of a new Amiga C programming book, which by all accounts is worth checking out. And finally, Tommy gives some insights into the pros and cons of CD-ROM as a games medium, based on his recent experience developing a multi-platform CD title—I think you'll find it interesting reading.

While the more observant among you may have noticed a very slight slip in newsletter print dates over the past six months, I hope to correct this with the October newsletter (always assuming I'm still the editor, of course—if anyone else is foolish enough to want this job, please let me know!).

I can only do this if I have articles, so please start thinking about writing an article *now*! The subject matter isn't terribly important, and neither is the writing style (after all, that's what the editor is for). So have a go—and you never know, it might lead to publication in the UK magazines as well (it's already happened to some existing CUGI authors).

Sunday meetings

Inside this issue, you'll find a proposal to move the times of meetings from Friday evenings to Sundays, and from fortnightly to monthly. Lest anyone be concerned, this is not something that the committee have decided on a whim—we have had much internal discussion and debate (on both sides!) about this matter. We have also talked to quite a few members and non-members to get their views.



```
Count Process Name                Action     Target Name                 Options Res.
91      [7] testcalls             FindTask   Illegal task                        Fail
92      [7] testcalls             LockScreen Workbench                           OK
93      [7] testcalls             LockScreen Illegal Screen                      Fail
94      [7] testcalls             OpenDev    timer.device                Unit 1  OK
95      [7] testcalls             OpenDev    Illegal device              Unit 0  Fail
96      ramlib                    Load       DEVS:Illegal device                 Fail
97      ramlib                    Load       Illegal device                      Fail
98      [7] testcalls             OpenFont   topaz.font                  Size 8  OK
99      [7] testcalls             OpenFont   Illegal font                Size 8  Fail
100     [7] testcalls             OpenLib    Illegal library             Ver 0   Fail
```

Status: Monitoring system activity

SnoopDos 3.0 — worth the wait?

So, all we ask is that you read the proposal with an open mind. At the end of the day, the committee are here to serve the members.

SnoopDos (at last!)

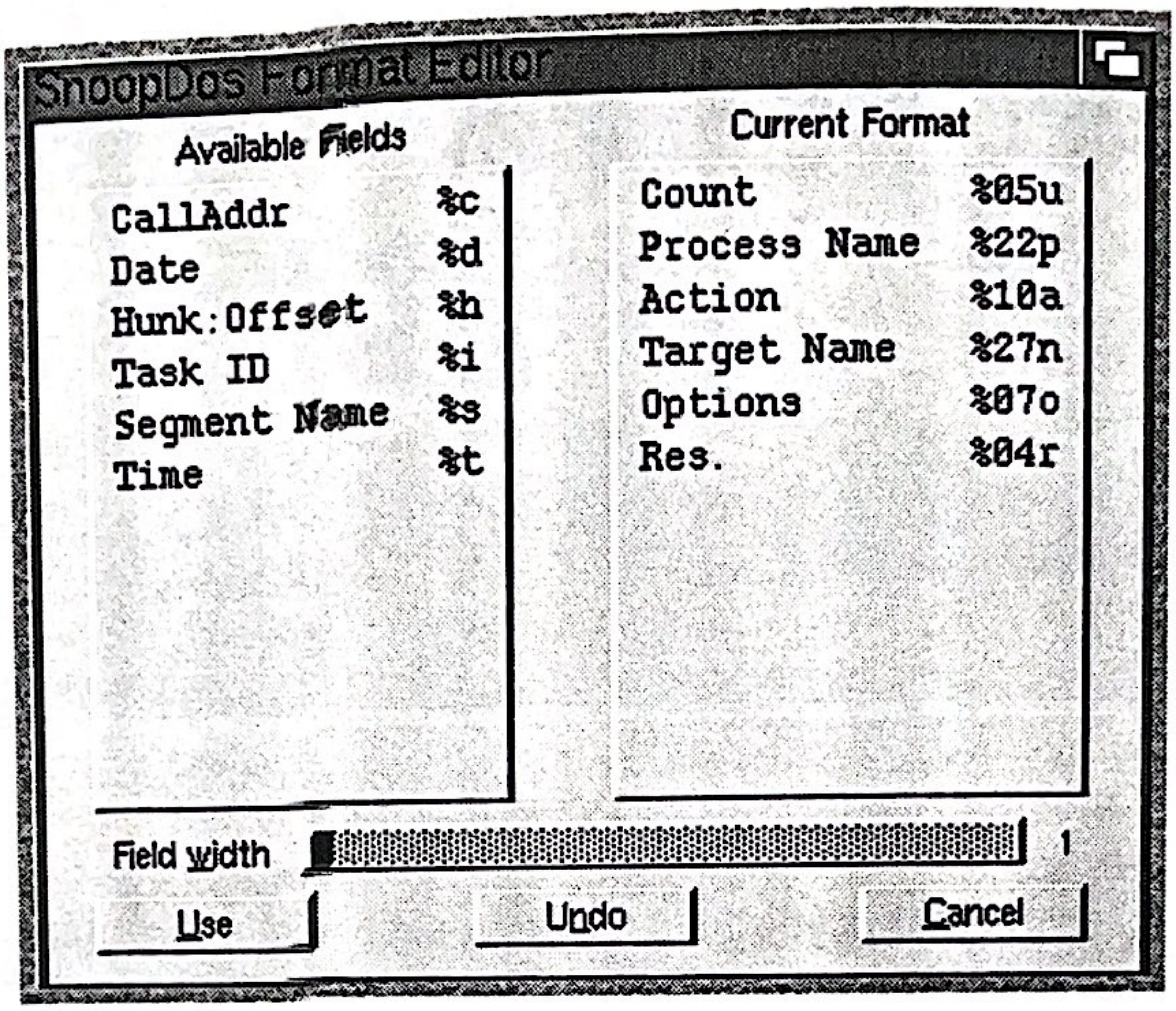
Since I find myself with several blank pages to fill, I may as well engage in self-indulgence and tell you a little about the new version of SnoopDos. As many of you know, I've been working on this for some 10 months now, even during my three month stay in the US, and I'm happy to say that the end is now firmly in sight. The documentation has been written, the program itself is in a late beta stage, and I hope to have it completed and ready for release before the September 16 meeting.

So, I hear you ask, what new features can you expect? Well, I could say "too many to mention", but that wouldn't fill very many of these blank pages. So, let's have a quick look at the more notable changes I've made.

The most striking change is that SnoopDos now boasts a font-sensitive GUI. This allows you to control all aspects of SnoopDos using the mouse (or, if you prefer, the keyboard). Output which has scrolled off the top of the display is now stored in a buffer, and can be redisplayed using the vertical scrollbar which now adorns the right edge of the window.

I've also added support for a variety of new functions. While SnoopDos 1.7 could only monitor six system functions, the new version can monitor 30! Among the new additions are 2.04 dos.library functions such as RunCommand and System, along with completely new functions which let you see what ARexx messages a program is sending or receiving and what icon tooltypes a program is looking for.

A significant new feature is the ability to monitor file operations by programs compiled using GNU C (i.e. any program that requires *ixemul.library*). Such programs bypass dos.library and communicate directly with DOS devices. Now you can see what they're doing, something no other DOS monitor allows at present.



Available Fields	
CallAddr	%c
Date	%d
Hunk:Offset	%h
Task ID	%i
Segment Name	%s
Time	%t

Current Format	
Count	%05u
Process Name	%22p
Action	%10a
Target Name	%27n
Options	%07o
Res.	%04r

SnoopDos now has an intuitive drag & drop format editor.

A range of new features have been added to make SnoopDos more user friendly. It's possible to copy the contents of the SnoopDos window to the clipboard, allowing you to paste SnoopDos output into your favourite text editor or word processor. Context-sensitive online help is available at any time by simply pressing the HELP key.

Perhaps the most eye-catching feature is the new 'drag & drop' format editor, which allows you to choose how much or how little information you want displayed about each function call. In addition to the information provided by SnoopDos 1.7, the new version can show you what time a function call was made, the disk module that called it, the ID of the calling task, and much more. You can also manipulate the output displayed in the main window directly by using the mouse to interactively make each column narrower or wider.

If you have lots of memory, you can now run SnoopDos as a commodity. This allows it to sit in the background, keeping an eye on what's happening while using only a small amount of processor time. If something goes wrong, you can press the appropriate hotkey to open the window and find out what happened.

Well, enough of blowing my own trumpet. I've included a screenshot above to whet your appetite, and as I said, I hope to have it available at the September 16 meeting for anyone who wants a copy.

In the meantime, enjoy this issue and sharpen those pencils!

E.C.

Interactive CD: Exploding the myth

by Thomas Rolfs

The software games industry is one of the youngest and fastest growing sectors of the leisure and entertainment market. In recent years, it has managed to move out of the specialist fringe and into the lucrative mainstream of teen and young-adult culture. Its estimated worth is in the region of $10 billion a year world wide, and is growing at an astonishing rate (around 50% per year).

It is not surprising, then, to see giants such as Sony, GoldStar, Philips, Panasonic, AT&T, and Sanyo, to mention just a few, all vying to provide the consumer with the ultimate entertainment platform. What the games machine of tomorrow will look like is hard to say, but it is a near certainty that it will sport a CD-ROM drive of some description.

Who said size isn't important?

The arrival of the compact disc is seen by the industry as a significant watershed in games development. The data capacity of the silver wonder is mind boggling when compared to the floppy disk, and though you might have sympathetically been told that size is not important, in the game arena size is all important.

Just think of the games we can make, now that we have unlimited space! We can use real digitised speech instead of text—after all, you can fit many hours of audio on to a CD, so there would be plenty of room. Not only that, we can have 16-bit music and sound effects—Brilliant!

And there's more: we can use different moods of music for the different parts of the game. Just think—we can fit hundreds of megabytes of animations and screens on to the disc. Hey, why don't we use fully rendered true-colour graphics? We have tons of space to fill up and they would be amazingly impressive. Yeah, that's it! And we can actually digitise real people and put them in to the game. Hell, we can start making real interactive movies at last. Holy smoke, we could. . .

Meanwhile back on earth, the boys in the back room have just received their first CD-ROM development system and are starting to put the new technology through its paces. A cry is heard: "WHAT THE HELL IS THIS CRAP!"

Nobody's perfect

Unfortunately, CD-ROMs have a slight draw back at present. Just as their storage is mind-bogglingly massive, they are also mind-numbingly slow. The slowness is partly due to a slow transfer rate of 150K per second for a standard drive, but the kiss of death, as far as the programmer is concerned, is the outrageous seek times.

The seek time is the time it takes for the reading head of the CD drive to move from one part of the disc to another. For a standard drive, a move of under 20 Mb from its current position can take up to a second to perform. A move greater then 20 Mb can take anywhere from one to three seconds to complete.

If we put these times into context using an example, we can see just how slow the CD drive is. Say we need to load 1 Mb of data split over three different files. We will open each file in turn and read the appropriate part of the file into memory.

Each open command will cause two seek operations: the first seek is to the file table data on the disk, followed by a seek to the actual file. Once the file is open we have to seek to the relevant part that we want to read. We can calculate the average time it will take to load our data as follows:

> We estimate the average seek time at 1.5 seconds. So, for the three reads we have nine seeks and it will take $9 \times 1.5 = 13$ seconds. We are reading 1 Mb of data at 150 K/s which comes to 6 seconds. This makes a grand total of $13 + 6 = 19$ seconds to load the data.

This is only a rough calculation, but you get the general idea.

Memory blues

The slow access times of a CD drive becomes significant when we look at the games platforms themselves. The amount of RAM a platform has is tiny compared to the storage capacity of a CD, but the data needs to be in RAM, rather than on the CD.

Because memory is scarce, we have to load graphics and other assets in only when we need them, then discard them when we are finished using them. However, this loading-on-demand for an interactive title, where the loading process can cause delays lasting as much as 20 seconds, is going to make for a very unplayable product. Consider:

> *You have just fought your way through hordes of foes and with your last dying breath you insert the Gem of Light into the concealed fissure which will open the Gates of Voboch, a wonderous and beautiful land like of which only heroes such as yourself will have been able to gaze upon. As the Gates open back you see...*
>
> "Please wait while data is loading. Thank you."
>
> *Nineteen seconds later and you are still on your last breath and you still haven't see Voboch.*

Getting the required response times needed for a playable interactive CD title does impose non-trivial constraints on the game designer and programmer. Both have to be very wise as to what can and cannot be achieved with the medium. The golden rule is: 'Minimize disc access', and when you do have to go to disc: 'Maximize disc access'.

The game designer is concerned with the first rule. He has to think about making the best use of the memory available so that disc access will be as spread out and infrequent as possible. He also needs to structure the game so that disc access occurs at points in the game where it can either be hidden, or the delay minimized or merged in as a natural pause in the game play.

A good example of using natural pauses is the CD-i version of our *Litil Divil* title. The game is made up of tunnel systems joining various rooms or locations. As we switch between tunnels and rooms and have to load the data for the new location, we play an animation of the transition while we load the data. For the player, the game seems continuous. Even though the transitions may become tiresome over time, he won't be annoyed by the delay.

The programmer, on the other hand, is concerned with both rules. He can minimize disc accesses by ensuring that asset management is optimum, i.e. assets which don't need to be discarded aren't discarded. This is similar to data caching, but on a higher level—we could call it *asset caching*.

Data compression is a big factor both for minimizing loading times and for maximising memory usage. We at Gremlin Ireland have spent a lot of energy in this area and the return has been very significant, since our products are very memory hungry due to the highly animated nature of our titles.

Maximising disc accesses is a whole field of endeavour in itself. At the lowest level, each access is reduced to a single seek operation. The key is to have all the relevant data grouped together in one place so that a single read operation can be performed. This means duplicating data if necessary. At higher levels, other strategies can be employed to spread load times.

Why CD?

As we can see, CD is not an ideal medium for interactive games. So why does the industry embrace it so fervently? Well, the advantages far outweigh the drawbacks. 640 Mb is still 640 Mb, even if it is slow.

There are also other factors involved here. The CD is already a recognised format; people are used to buying audio CDs. CDs are also very cheap to manufacture and duplication is very reliable. A third factor is digital video via MPEG, another recognised standard, with MPEG2 to follow: Being able to putting live video into games is always a plus. There is also the PC compatible market. There are vast numbers of PC owners adding CD-ROM drives to their systems who are only to happy to exchange their cash for a small circle of silver.

And the simplest reason of all: there is nothing else available at the moment that does the job better than the CD.

Complete Amiga C

by Colum Keane

The title was tempting: *Complete Amiga C—Everything you need to start programming your Amiga in C.* You may have seen the adverts in Amiga Shopper, which promised something that would surely be the best thing since sliced bread. Cliff Ramshaw, the author (and former editor of Amiga Shopper) has put together a package which he claims provides a professional development environment at a low cost.

So, for the princely sum of £25.75, I purchased a copy. This bought me a 313 page paperback introduction to C programming and four disks containing a complete version of Matt Dillon's DICE C.

When you start programming on the Amiga, it is likely that you will first try out public domain programming packages such as North C or PCQ Pascal. However, the absence of the official Commodore includes means that use of these packages is limited. I have also tried other languages such as Amiga E (reviewed in a previous newsletter). Although well supported, it still has some rough edges, making it a little difficult to use at times.

C is the language in which the Amiga's OS is written and with which it is designed to work best. The book's preface calls it the professional's programming language. This is unarguably true, so any book trying to popularise it faces a daunting task.

Completely at C?

After glancing through the disks and book, I realised that *Complete Amiga C* was perhaps not the most appropriate title. The author admits as much in the introduction when he says that the book is aimed at the lowest common denominator, i.e. those who have no programming ability in C whatsoever. So, while it might be complete C on an Amiga, it is not complete Amiga C. Even if you are already familiar with C, don't despair—the book can be a useful reminder of all the good C programming techniques that you have forgotten.

The book is aimed at those with little or no programming experience. It starts with the basics of programming ('What is a program?'), moves through writing simple C programs (printing "hello world") and eventually explains topics such as linked lists and simple recursion.

While doing this in 300 pages is a feat in itself, Cliff manages to do so clearly and efficiently. C can be an unfriendly language, but a clean layout that makes good use of diagrams and example code makes the book easily readable. Forgive the cliché, but why wasn't there a book like this when I had to learn C?

Don't expect to be writing your own operating system after reading the book—it's not that complete. It covers all that you might expect to cover in the first year of a programming course in college. Amiga specific coding is scarce, with only two chapters at the end touching upon the subject. To be fair there would not have been a whole lot of room for anything else if it was covered in any more detail.

If you are looking for a book that teaches you Amiga specifics, consider the Amiga ROM Kernel Manuals, or the many other Amiga programming guides. One final point regarding the example code is that while there are several pages of it, the author neglected to include any of it on the disks.

DICE (Dillon's Integrated C Environment) deserves a review of its own to do it justice. For those not familiar with it, DICE is a complete C programming environment that has appeared in several versions in the last couple of years. Versions prior to 3.0 are shareware, while those from 3.0 and up are commercial. Its author is one of the more notable Amiga developers, Matt Dillon.

It's Official!

As well as the compiler and all its supporting utilities, Matt has licensed the official Amiga includes from Commodore. The resulting system is comparable to many more expensive commercial compilers. With a registration fee of $50 it is certainly good value. In designing DICE, Matt says that his goals were to develop a fast, reliable and easy to use system that gives comprehensive support for all versions of the Amiga's OS.

It also aims to be usable on all size systems, from the largest to the smallest. This I can confirm—for the review, my setup was a 1 Mb floppy-based A500 running Kickstart 1.3. While it was a tight fit, with some disk swapping I had a very usable system. The version of DICE that comes with 'Complete Amiga C' is v2.0, but since the publication of the book, v3.0 has been released and as you might expect, is said to be bigger, better and faster. A demo disk for an older version of DICE is available from CUGI's library.

With DICE 2.0, you can expect to get an ANSI C compiler, DME (a highly configurable programmer's editor), *make* and other UNIX programming utilities, along with a complete set of includes. Although the book says otherwise, my disks included a full set of includes and link libraries for Kickstart 1.3, 2.0 and 3.0.

The distribution also includes help files for all the different programs, which can also be accessed directly from DME. One of the disks comes with a bootable ready-made C environment. From a single floppy you can then compile many of the examples in the book. The other disks contain archived versions of all the files, for installation onto hard disk.

There is also a text based profiler, and link libraries for several memory models. Note that there is no debugger included in this version of the distribution. One of the most useful utilities (especially on my own system) is a filesystem that compresses files on the fly. Matt makes no guarantees for its reliability but it will work better than 99% of the time. It is not redistributable so you can't use it to swap files, but on small systems it is invaluable for making more room available.

Small and Nippy

I am very happy with my single floppy setup. Admittedly, I had to squeeze out some unnecessary files but now I can compile programs of a few thousand lines with ease. This demonstrates one of the difficulties of using a system such as DICE with a book of this type. DICE is a very powerful system, and by virtue of this is not always user friendly. When I bought the book, I didn't mind having to change the setup to suit my system. However, the C novice at which the book is aimed, might not be able to get the most out of the bootable floopy provided.

It is like giving a UNIX box to a secretary who only wants to type up some memos. I feel that the publishers might have done more than provide the bare DICE distribution disks—a more user friendly introduction disk with the sample code available would have helped users to find their feet.

I know I have been short on specifics about the system; I will leave a more thorough review to someone with a copy of v3.0. Suffice it to say that Matt has met his goals of providing a fast, reliable and (relatively) easy to use system in v2.0. The compiler meets my needs with more options than I could even think of using.

I think that the publishers have done well to make a good quality Amiga development environment like DICE widely available. *Complete Amiga C* is a good buy: for the novice, it gives a good introduction to C along with a usable compiler, and for someone more familiar with C, a full compiler environment at an unbeatable price.

For Sale

PRINTER. Commodore MPS-801 model. Proprietary Commodore serial interface. 80 character column width. Tractor feed with manual override. Graphic capablities. Excellent, as-new condition (little used). Reasonable offers to Ben Hurley during office hours on (01) 676 1531.

A500/A2000 MEMORY EXPANSION. 8 Mb, works in either model. £160. Contact Keith Byrne on (01) 626 1206.

A Proposal to Change Meeting Times

Currently, CUGI meetings are held every two weeks on Friday evenings from approximately 8 pm to 10 pm. After much discussion and debate, the current committee have decided that a change in meeting times would be in the best interest of the group. We propose that CUGI meetings should take place on the third Sunday of every month from 3 pm to 6 pm.

There are several compelling reasons for this, which we'll look at below.

Quality and availability

These are the key factors in moving the time of meetings. By having fewer longer meetings, we are aiming to improve the quality of meetings while increasing the attendance.

Meeting once a month concentrates two old meetings into one more interesting session. More informative meetings combined with increased member availability will lead to a more consistent high level of attendance at meetings, something which has been getting more difficult to achieve in recent years.

The "home computer boom" of the 1980s is no longer with us and it is unrealistic to expect the same high number of people to meet every two weeks.

Fridays have limited appeal

Socially speaking, Friday night clashes with many peoples' plans. It's a lot easier to be available on a Sunday afternoon, especially if meetings are held just once a month.

Many members are also dependent on the DART and bus service for their travel, and so are not always able to stay until the end of Friday meetings. Sunday meetings remove this obstacle, and also make it more practical for non-Dublin members to attend occasionally.

Along the same lines, committee members sometimes have trouble getting to a Friday meeting sufficiently early to ensure all the equipment is organised, due to work or distance constraints. This leads to meetings starting late. An afternoon start would essentially remove this problem.

Fewer meetings with higher quality presentations

In order to promote the club and its activities, it is important than when new people come to CUGI, the content of the meeting is sufficient to have made it worth their while attending, and to make them consider returning in the future.

Meetings every two weeks are too frequent to guarantee a high standard of presentations at meetings. This leads to a considerable burden on the committee to prepare meetings of suitably high quality.

Holding meetings once a month also makes it more practical to consider hiring equipment such as video projectors for the afternoon, to facilitate a particular demonstration.

When is CUGI on?

Meeting on a fixed day each month avoids the "I wonder if CUGI is on this Friday" problem, especially for those who aren't regular attendees.

Widening the audience

Inviting more 'serious' users of the Amiga, both as presenters and as audience, is much more practical as meetings are a bigger event. Also, a fixed date means long-term planning for presentation becomes easier. Outside speakers are also more likely to be available to talk on Sunday than on Friday.

Special Interest Groups

It's also possible that in addition to the big monthly meeting, special interest groups covering areas such as programming, beginners, graphics, etc. might be set up, as is common with some user groups in the US. Such groups would meet informally, perhaps also once a month.

What happens next?

A fundamental change like this is not made lightly. We welcome discussion on this matter, both at meetings and in private.

At the forthcoming AGM on October 14, a vote will be taken to see if the change is in accordance with the wishes of a clear majority of members. If the vote is passed, then the change over to Sunday meetings will commence in November.

Surfing the Net with your Amiga

by Colin Dalton

In the last issue of the newsletter, Karl looked at the generalities of getting your Amiga onto the Internet. In this article, I'll get down to some serious net surfing, and tell you about some of the many applications available.

I was fortunate enough to be able to borrow an Ethernet card and bring my accelerated A2000 into work, where I physically connected it to the company's network. The first step was installing AmiTCP. This is a reasonably straightforward operation—AmiTCP uses the standard Commodore Installer program for the installation. The install script asks for details on your machine's IP address, the IP address of the default gateway and the nameserver, and a few other details relating to the network setup.

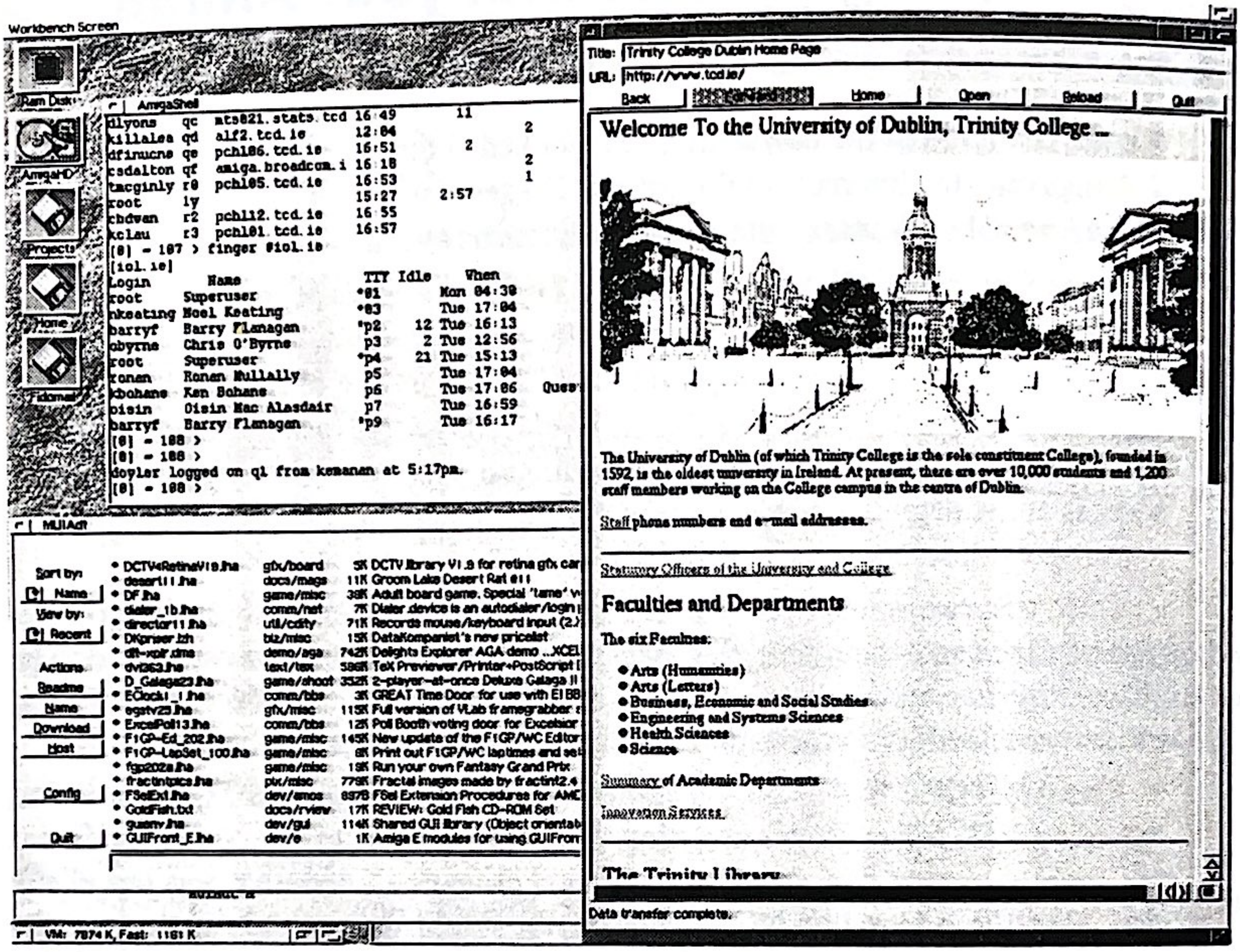
Once this two-minute job was complete (and the bugs in some of the configuration files were corrected), the configuration of the company's router had to be altered to allow external traffic into it. Then the moment of truth: I entered `ping ns.uu.net`, and it returned successfully—now my Amiga was on the net!

The AmiTCP 3.0 distribution comes with plenty of standard TCP/IP utilities, including FTP, telnet, finger and ping. My first step was to fire up FTP and head for Aminet to start downloading additional programs. AMosaic was top of my list. AMosaic is based on NCSA Mosaic, the World Wide Web browser from the National Center for Supercomputing Applications in Illinois. I was worried that setting it up might be difficult, but my fears proved groundless—I just extracted the archive and double-clicked on the icon, and it worked first time.

Heartened by this, I set about getting FTP and telnet daemons that would let others log into my machine from other sites on the Internet. I ftp'd the files and installed them almost as painlessly as Mosaic. Things were complicated by the fact that the FTP daemon I chose didn't have any security features in it (anyone could log in without a password), and I wasn't using MultiUser. Because of this, I disabled FTP during the night, when my computer was unattended. It wouldn't do to arrive back in in the morning to find my hard disk had been formatted!

That said, there is an excellent FTP daemon available, ported from Washington University's wu-ftpd. However, it looked like a lot of work to set up, so I plumped for the easy way out, and chose the simpler one without all the security features.

Next step was to install a telnet daemon. This allows people from all over the Internet to log into my humble machine, provided they have a valid password. At one stage, I had friends in Belfast, New York, San Francisco and a local college all logged on at once. This is quite a strange feeling, as a utility like SnoopDOS is the only way of finding out what these people are doing!



```
dlyons    qc  mts021.stats.tcd 16:49     11
killalea qd  alf2.tcd.ie      12:04              2
dfinucne qe  pch106.tcd.ie    16:51      2
csdalton qf  amiga.broadcom.i 16:18              2
tmcginly r0  pch105.tcd.ie    16:53              1
root     1y                   15:27    2:57
chdwan   r2  pch112.tcd.ie    16:55
kclau    r3  pch101.tcd.ie    16:57
[0] - 107 > finger @iol.ie
[iol.ie]
Login      Name              TTY Idle    When
root     Superuser           *01       Mon 04:30
nkeating Noel Keating        *03       Tue 17:04
barryf   Barry Flanagan      *p2    12 Tue 16:13
obyrne   Chris O'Byrne        p3     2 Tue 12:56
root     Superuser           *p4    21 Tue 15:13
ronan    Ronan Mullally       p5       Tue 17:04
kbohane  Ken Bohane           p6       Tue 17:06   Ques
oisin    Oisin Mac Alasdair   p7       Tue 16:59
barryf   Barry Flanagan      *p9       Tue 16:17
[0] - 108 >
[0] - 108 >
doyler logged on q1 from kemanan at 5:17pm.
[0] - 108 >
```

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• DCTV4RetinaV19.lha    gfx/board     5K DCTV library V1.9 for retina gfx car
• desert11.lha          docs/mags    11K Groom Lake Desert Rat #11
• DF.lha                game/misc    38K Adult board game. Special 'tame' v
• dialer_1b.lha         comm/net      7K Dialer.device is an autodialer/login
• director11.lha        util/cdity   71K Records mouse/keyboard input (2.)
• DKpriser.lzh          biz/misc     15K DataKompaniet's new pricelist
• dlt-xplr.dms          demo/aga    742K Delights Explorer AGA demo ...XCEL
• dvi363.lha            text/tex    586K TeX Previewer/Printer+PostScript [
• D_Galaga23.lha        game/shoot  352K 2-player-at-once Deluxe Galaga II
• EClock1_1.lha         comm/bbs      3K GREAT Time Door for use with EIBB
• egstv25.lha           gfx/misc    115K Full version of VLab framegrabber
• ExcelPoll13.lha       comm/bbs     12K Poll Booth voting door for Excelsior
• F1GP-Ed_202.lha       game/misc   145K New update of the F1GP/WC Editor
• F1GP-LapSet_100.lha   game/misc     8K Print out F1GP/WC laptimes and se
• fgp202a.lha           game/misc    19K Run your own Fantasy Grand Prix
• fractintpics.lha      pix/misc    779K Fractal images made by fractint2.4
• FSelExt.lha           dev/amos    897B FSel Extension Procedures for AMC
• GoldFish.txt          docs/rview   17K REVIEW: Gold Fish CD-ROM Set
• guenv.lha             dev/gui     114K Shared GUI library (Object orientab
• GUIFront_E.lha        dev/e         1K Amiga E modules for using GUIFron
```

Title: Trinity College Dublin Home Page

URL: http://www.tcd.ie/

Welcome To the University of Dublin, Trinity College ...

The University of Dublin (of which Trinity College is the sole constituent College), founded in 1592, is the oldest university in Ireland. At present, there are over 10,000 students and 1,200 staff members working on the College campus in the centre of Dublin.

Staff phone numbers and e-mail addresses.

Statutory Officers of the University and College.

Faculties and Departments

The six Faculties:

- Arts (Humanities)
- Arts (Letters)
- Business, Economic and Social Studies
- Engineering and Systems Sciences
- Health Sciences
- Science

Summary of Academic Departments

Innovation Services.

The Trinity Library

Data transfer complete.

Amiga Mosaic lets you surf the Internet using only your mouse.

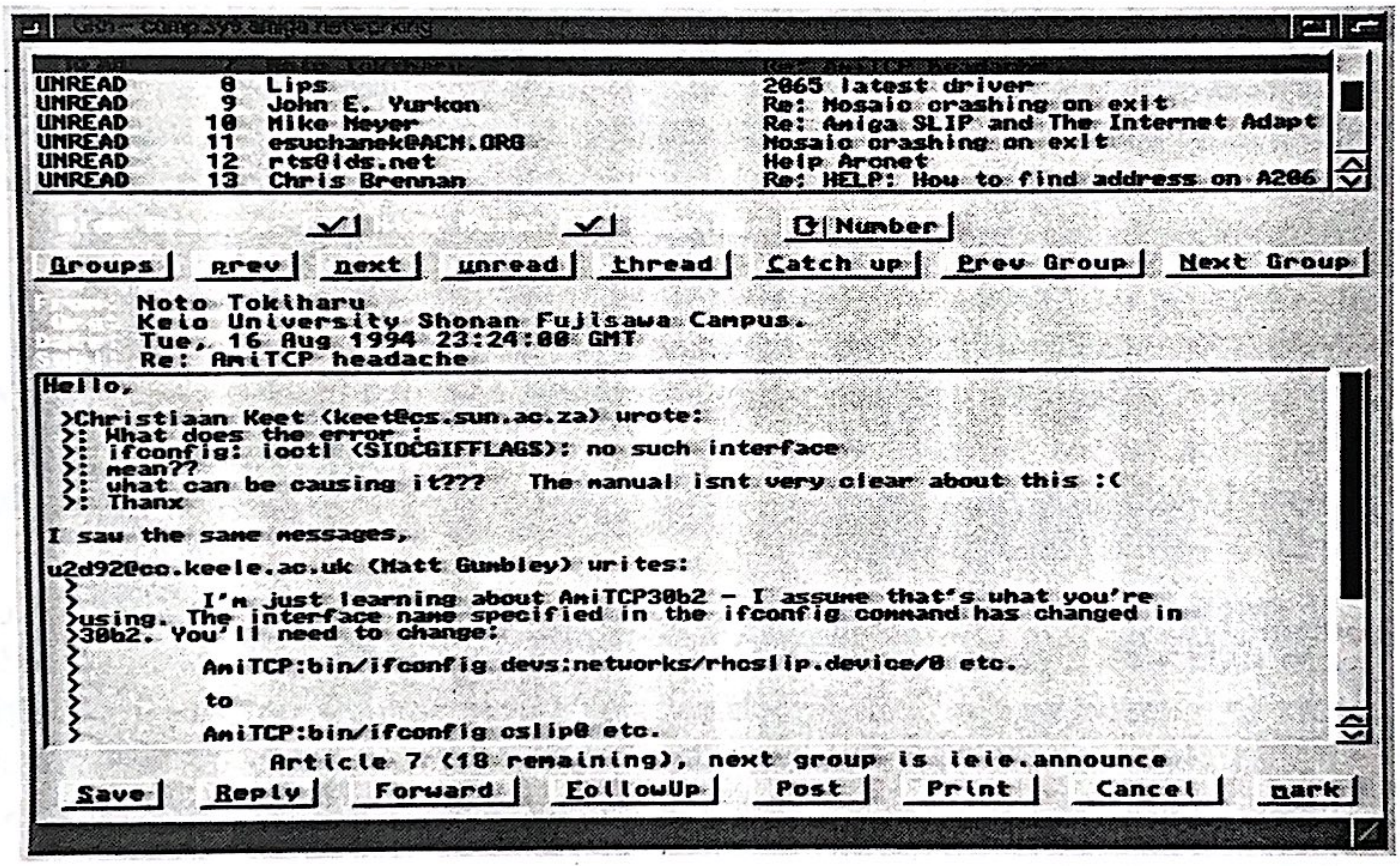
At this stage, I decided to get some work done, and so arose the problem of transferring my files from the Sun NFS server to my machine. Fortunately, AmiTCP 3.0 comes with NFS client software which is simplicity itself to use. All I had to do was put the line `ch_nfsc server:/users/csd Home:` in my startup-sequence, and my home directory was available as Home: every time I booted. Then I remembered that one of the Aminet mirrors in the US exported its archives with NFS. So, the simple line `ch_nfsc ftp.wustl.edu:/archive/pub/aminet Aminet:` gave me an Aminet disk icon on my Workbench screen. Over a gigabyte of Amiga software was a mere double-click away!

So far, everything was going faultlessly. Next I tried to get a mail system set up. This task is greatly eased by a package of handy tools called INet-Utils. It includes an SMTP daemon, as well as a drop-in replacement for the AmigaUUCP sendmail command. This means that mailers that were designed to work with UUCP (such as AmigaElm) will also work with SMTP. This setup allows you to have as many email addresses at an address as you like, which is handy if you are running a BBS and want to give your users access to Internet email.

You don't have to be online to post mail either. If you are offline, the message will be spooled to disk and sent off when you are next connected to the net.

Usenet news is also catered for. There are serveral ways to approach this. The first option is to read news online while connected to an NNTP server. This has the advantage that you don't have to store the news on your local hard disk (a full Usenet feed is over 180 MB a day!). However, it means that you have to be connected to the net, and this can be expensive if you are using a SLIP dialup link.

Again, INet-Utils comes to the rescue, with a program called NNTPxfer. This connects to the NNTP server, and downloads all the new articles in the newsgroups you specify. The articles are stored in the standard C News format that is compatible with most newsreaders. At the moment you can only post articles if you are online, but this will be rectified in a forthcoming version.



```
UNREAD     8  Lips                   2065 latest driver
UNREAD     9  John E. Yurkon         Re: Mosaic crashing on exit
UNREAD    10  Mike Meyer             Re: Amiga SLIP and The Internet Adapt
UNREAD    11  esuchanek@ACM.ORG      Mosaic crashing on exit
UNREAD    12  rts@ids.net            Help Arcnet
UNREAD    13  Chris Brennan          Re: HELP: How to find address on A206
```

```
Noto Tokiharu
Keio University Shonan Fujisawa Campus.
Tue, 16 Aug 1994 23:24:00 GMT
Re: AmiTCP headache
```

```
Hello,

 >Christiaan Keet (keet@cs.sun.ac.za) wrote:
 >: What does the error :
 >: ifconfig: ioctl (SIOCGIFFLAGS): no such interface
 >: mean??
 >: what can be causing it???  The manual isnt very clear about this :(
 >: Thanx

I saw the same messages,

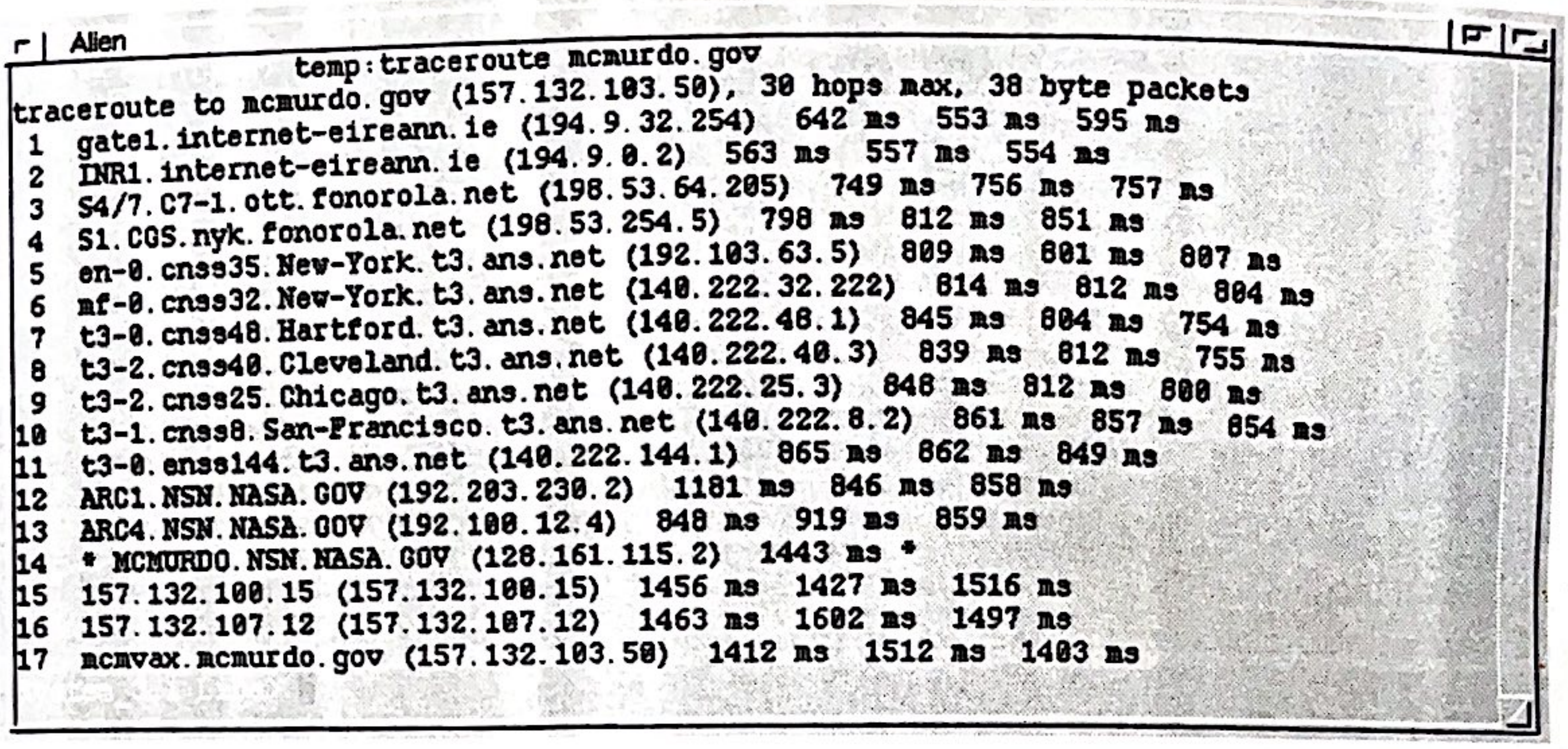
u2d92@cc.keele.ac.uk (Matt Gumbley) writes:
 >
 >        I'm just learning about AmiTCP30b2 - I assume that's what you're
 >using. The interface name specified in the ifconfig command has changed in
 >30b2. You'll need to change:
 >
 >        AmiTCP:bin/ifconfig devs:networks/rhoslip.device/0 etc.
 >
 >        to
 >
 >        AmiTCP:bin/ifconfig cslip0 etc.
```

```
Article 7 (18 remaining), next group is ieie.announce
```

GRn is one of the nicer GUI-based news readers.

One of my favourite newsreaders on the Amiga is GRn—Gadtools ReadNews. As the name implies, it uses a Gadtools GUI for its front-end. This will come as a breath of fresh air to those used to programs like nn or rn on a Unix machine! GRn is rather slow at getting the article headers (from which it builds a list of articles) from NNTP servers—annoying if you are running up a phone bill. However, you can use GRn to read news that you have spooled to disk with NNTPxfer.

A little utility that fascinated me was `traceroute`. This traces the path that the IP packets take to a particular destination. This is handy for debugging your



```
                    temp:traceroute mcmurdo.gov
traceroute to mcmurdo.gov (157.132.103.50), 30 hops max, 38 byte packets
 1  gate1.internet-eireann.ie (194.9.32.254)  642 ms  553 ms  595 ms
 2  INR1.internet-eireann.ie (194.9.0.2)  563 ms  557 ms  554 ms
 3  S4/7.C7-1.ott.fonorola.net (198.53.64.205)  749 ms  756 ms  757 ms
 4  S1.CGS.nyk.fonorola.net (198.53.254.5)  798 ms  812 ms  851 ms
 5  en-0.cnss35.New-York.t3.ans.net (192.103.63.5)  809 ms  801 ms  807 ms
 6  mf-0.cnss32.New-York.t3.ans.net (140.222.32.222)  814 ms  812 ms  804 ms
 7  t3-0.cnss48.Hartford.t3.ans.net (140.222.48.1)  845 ms  804 ms  754 ms
 8  t3-2.cnss40.Cleveland.t3.ans.net (140.222.40.3)  839 ms  812 ms  755 ms
 9  t3-2.cnss25.Chicago.t3.ans.net (140.222.25.3)  848 ms  812 ms  800 ms
10  t3-1.cnss8.San-Francisco.t3.ans.net (140.222.8.2)  861 ms  857 ms  854 ms
11  t3-0.enss144.t3.ans.net (140.222.144.1)  865 ms  862 ms  849 ms
12  ARC1.NSN.NASA.GOV (192.203.230.2)  1181 ms  846 ms  858 ms
13  ARC4.NSN.NASA.GOV (192.100.12.4)  848 ms  919 ms  859 ms
14  * MCMURDO.NSN.NASA.GOV (128.161.115.2)  1443 ms *
15  157.132.100.15 (157.132.100.15)  1456 ms  1427 ms  1516 ms
16  157.132.107.12 (157.132.107.12)  1463 ms  1602 ms  1497 ms
17  mcmvax.mcmurdo.gov (157.132.103.50)  1412 ms  1512 ms  1403 ms
```

Sample `traceroute` *output, showing the path taken to Antartica.*

network, and it's also interesting to see the convoluted path your keystrokes take to their destination. In the worst case, traffic to a computer 12 miles from my home was routed via Canada, New York and Amsterdam! See above for an example (the destination in this case was a scientific research station in Antarctica).

Also on the "cool stuff" list is MuiAdt. This is a MUI verison of the Unix-based Aminet Download Tool, the friendly front-end to Aminet. If the thought of remembering FTP's arcane commands scares you, this is what you need! You just click on the name of the Aminet site nearest you, it downloads a list of recently-uploaded files, and you select the ones you want to download with your mouse—what could be simpler?

Another popular Internet service is `talk`. This allows you to communicate in real time with a person at another site on the net. The Amiga is well served in this department by AmiTalk, which pops up a little window on your Workbench screen when someone is requesting a talk; you can then choose to answer or ignore them. Conversely, you can initiate a talk session with anyone else by typing `talk username@machine.domain`.

An extension of talk is IRC—Internet Relay Chat. This is like `talk`, except you can have more than two people in a conversation. IRC is divided up into channels, with the main Amiga one being `#amiga`. IRC is like the CB radio world in that everyone has a "handle" (nickname). Some examples from the `#amiga` channel include U4ia, DR_FACT, and LadyHawke. When someone "talks" their handle appears to the left of the screen. followed by what they said.

. One of the nice features of the `#amiga` channel is Mama. Mama is a 'bot', a program that can be given instructions to go and do things. Mama's speciality is getting stuff from Aminet. Typing `/msg Mama get filename` will tell Mama to get filename from Aminet for you (all IRC commands are preceded by a /). Individual members of a channel can send and receive files via a mechanism called DCC (Direct Client Connection). The transfer is carried out in the background without affecting the conversations in progress.

There are currently two IRC clients for the Amiga in preparation, and both should be released soon. But beware: time can fly on IRC, and if you are paying for the phonecall, things can get expensive!

Overall, I was extremely pleased with the setup. The hardware (a five year old Hydra Systems Ethernet card) worked perfectly with AmiTCP, and it was fast too—I got FTP transfer rates of 180 Kb/s over the company Ethernet. The software was equally impressive and stable, despite the fact that it was still in beta.

Glossary

Daemon. A program that sits in the background waiting for a certain event to occur, upon which it performs some function. An SMTP daemon (or SMTPd) would sit and wait for another computer to connect to your machine's mail port, for example, whereupon it would deliver the mail to the relevant person's mailbox.

FTP. File Transfer Protocol, a method of transferring files over TCP/IP. Also the name of the program that uses this protocol.

Mosaic. The most popular viewer program for the WWW (World Wide Web).

NFS. Network File System, a system of sharing drives over an IP network, developed by Sun Microsystems.

NNTP. Network News Transfer Protocol, a protocol for transferring Usenet news between Internet sites.

Ping. A network diagnostic utility. Ping <machine> tests to see if <machine> can currently be reached over the network.

SLIP. Serial Line Internet Protocol, a protocol used for Internet connections over serial links, such as modems.

SMTP. Like NNTP, but for Internet email.

Telnet. A program used to let you login to other machines on the net.

UUCP. Unix-to-Unix Copy Program. Before the advent of dedicated high speed lines, most mail and news was delivered via 1200 baud modems over normal telephone lines. The suite of utilities that handled this transfer is called UUCP, after the most useful command in the suite.

WWW. World Wide Web, a graphical, hypertext-based system of accessing information stored on the Internet. It's similar to AmigaGuide, except that links can be to documents on remote sites anywhere on the net, and can contain pictures, MPEG movies and audio.

LineLink 144e FaxModem

by Kieran Tully

About a year ago, I borrowed the CUGI modem over the August break. I had already been thinking about buying a modem, and this only confirmed my need for one. I managed to 'borrow' an old Cornel modem from my father's workplace, but it only did 1200 bps. Not too bad compared to CUGI's modem (which I still say wouldn't work properly at 2400 bps Jamie!) but with the recent appearance of 28,800 bps modems, this was begining to look extremely slow. So, I decided to look around for a cheap V32bis modem.

An old issue of Amiga Report carried a review of the LineLink 144e. Although designed for the Macintosh, it operated fine with the Amiga, supported 14,400 bps and best of all, cost only $99! Now all I had to do was come up with the necessary amount of filthy lucre.

Unfortunately, the number given in the review was a toll-free 800 number in the US which wouldn't work from Ireland. After some phone calls, I managed to find someone with a catalogue [*You only had to ask!—Ed.*] This had an address, and an international order number.

It turned out that the company was actually called MicroWarehouse, selling under the guise of MacWarehouse (and also CD-ROM Warehouse and PC Warehouse, as I later discovered). As they have a 24 hour order line, I decided to call after 10 pm (economy rate to the US) in case I was left on hold. Thankfully, I wasn't, and after 5 minutes of conversation, my LineLink was ordered.

MacWarehouse sent the modem by DHL, so of course it arrived instantly, with a Supermanesque flash through the sky (as seen on TV). Kidding aside, I ordered the modem on a Thursday evening, at about 5 pm US time; it was shipped on the Friday, and arrived at my door on Monday morning. I was quite impressed with this (especially considering what Commodore manage over much shorter distances), and would certainly have no hesitation in ordering from MacWarehouse again, despite some of the horror stories I have heard about mail order from the US.

The box contained a MacWarehouse catalogue, a flimsy (useless!) manual, a 120V AC adaptor, telephone cable, Mac modem cable, a 3.5″ disk containing a Macintosh comms program, and of course, the modem. A quick trip into Peats yielded a suitable transformer (a SNES one—yeuch!) and I already I had a suitable serial cable, so I was all set.

The modem worked perfectly out of the box with no need to mess with internal settings, or nasty AT commands (although I have since changed some of these, to make the modem track the true state of the carrier signal, for example).

Specifications

The modem measures about twice the size of an equivalent Supra, with a white exterior more suited to the Amiga's colouring then most other modems I have seen. Although supposedly from Telepro Technologies Inc, it is actually made by Prometheus in the US. (Stranger still, MacWarehouse actually sell the exact same modem under their own brand name, PowerUser, for $149.95.).

The status panel is made up of the usual LEDs, with the exception that the TD and RD LEDs are replaced by an I/O LED that flashes whenever the modem is sending or receiving data. The usual RS-232 connector, telephone pass-through socket and on/off switch are also present at the back of the modem.

The modem supports speeds up to V32bis (14,400 bps), and is backwards compatible with all speeds down to 1200/75, including equivalent synchronous speeds—vital for fax transmissions. V.42bis compression is supported, along with MNP levels 1–5, yielding a theoretical maximum throughput of 57,600 bps on uncompressed data.

Full hardware handshaking is also there if you want it. Tests have yielded 1600 cps on average on compressed data (depending on line quality) and upwards of 1800 cps on large uncompressed text files. On a bad line, I can only manage just over 1400 cps, but this still seems reasonable considering I'm using a 50 foot telephone cable that passes numerous sources of possible interference on its way to the RJ-11 wall socket.

Tone dialing works fine, and the pulse dialing can be changed with a command to use the correct delays. The modem uses a Sierra Semiconductor Corp chipset, and seems to be compatible with the Rockwell implementation used by Supra. Although the Amiga Report review raised some questions about bugs during high speed transmissions on noisy lines, these seem to have been fixed in my model.

But what does it do?

Using various ATI? commands revealed the following specifications:

```
Copyright (c) 1994 SSC, V1.3B.2     - 01/19/94

SERIAL * V32BIS * V42BIS * VOICE 2.2 * TIES * CID * SRFAX *

DSP Version: V1.30
MCP Version: V1.3  - 07/07/93, Copyright (c) 1993 SSC
```

Some of that looks interesting. Voice? Yes, MacWarehouse sells software for the Macintosh (from the manufacturers) that allows you to use this modem as an answering machine. They also sell the same software with the Zoom, so perhaps you may be able to get Amiga software for this. I believe such software is available from GVP (similar to that bundled with their PhonePak card), but it is only designed for the Rockwell chipset. AT+FCLASS=8 returns OK, but then so does AT+FCLASS=5...

CID is Caller ID. Again, you will have to get software for this, and the implementation may not be compatible with that which Telecom Eireann have adopted.

SRFAX means send/receive fax. I belive this is Class 2/Group III (although I doubt it is fully EIA Class 2.0 compliant) and may also support Class I/Group III—I have not yet been able to test this capability. I did manage to get the modem to generate the necessary tones for fax though (and again, the appropriate AT+FCLASS commands return OK).

If anyone has any ideas on what TIES stands for, I would be very interested in hearing them.

Conclusion

So, how much did this bargain modem actually cost me? About £80 ($99 plus $23 carriage) on the credit card, £30 VAT and duty, and £15 for the transformer, which adds up to £125. If you don't already have a serial cable, and don't want to endure CPC, this will cost you another £10. Considering that equivalent Supra modems (without the voice option) are coming down in price, you might want to consider one of those if you definitely need fax.

I'm happy with my purchase, although the catalogue sent with my order annoyed me slightly, as it also included a 28,800 FaxModem manufactured 'under licence' by Hayes called the Magnum (and no, it's not an ice cream :-) for only $149.95! This seems like a lot more money, but since the carriage, duty and transformer were what added to the price, this would have only cost me another £20 or so. Sigh! And of course, if you know someone travelling to the US willing to develop amnesia whilst going through customs, this looks even cheaper!

MacWarehouse are on +1-908-370-4779, in Ohio. The LineLink is Order No. MOD0145, and the 28,800 Magnum is DMD 1255. If you want to see the catalogue, contact me at any CUGI meeting.

For Sale

COMMODORE 1942 14″ monitor with .28 dot pitch and built-in stereo speakers. Handles all AGA modes, great for A1200/4000. Less than one year old. Perfect condition. £250. Phone Karl Jeacle on (01) 677 5365 evenings.

The World Wide Web

by Karl Jeacle

Sometime early last year when setting up our company Internet connection, I heard great things about an Internet tool called Mosaic, and was anxious to try it out. However, when I tried it, I found it connected to some site in the USA, and over our low-speed Internet link it was just unbearably slow.

Six months later, I decided to try again. I got a copy of the latest version and started over. This time was different. The interface had been completely revamped. While the first version tried to integrate every Internet tool into one program, this version seemed much more focused. Still unsure exactly what I was doing, I chose the 'Open URL' menu option and typed in a 'URL' (Universal Resource Locator) I had found in someone's signature. Seconds later, a rather neat mix of text and graphics filled my screen. I had found the 'home page' of a local computer company. Revelation!

So what is this Mosaic thing anyway?

Mosaic is just one of many browser programs for the World Wide Web (also referred to as WWW or W3). It's hard to describe the Web without actually demonstrating it by running Mosaic, but hopefully this article will give you a reasonable idea of what all the fuss is about.

Formally, the Web can be described as a hypermedia document system, i.e. a hypertext system which supports links—not just to text but also to other media types such as still images, video and audio. Furthermore, the Web is distributed. Unlike conventional hypertext systems where links point to local documents, Web documents can contain links which point to objects residing on remote machines.

Try imagining an enhanced version of AmigaGuide. First make the text a little richer using a variety of different sized fonts; next, embed images within the document text. Finally, network a few Amigas together on the Internet, each with their own AmigaGuide files. Place a few special links in these files which make them point to the AmigaGuide files on the other networked machines.

Now by using your new AmigaGuide browser on one machine, you can click on what looks like just another link, and transparently view a page stored on a different machine. And by clicking on a link contained in that page, you retrieve a page from yet another machine. Link enough of these together, and eventually you'll give rise to a web effect all over the world—a World Wide Web.

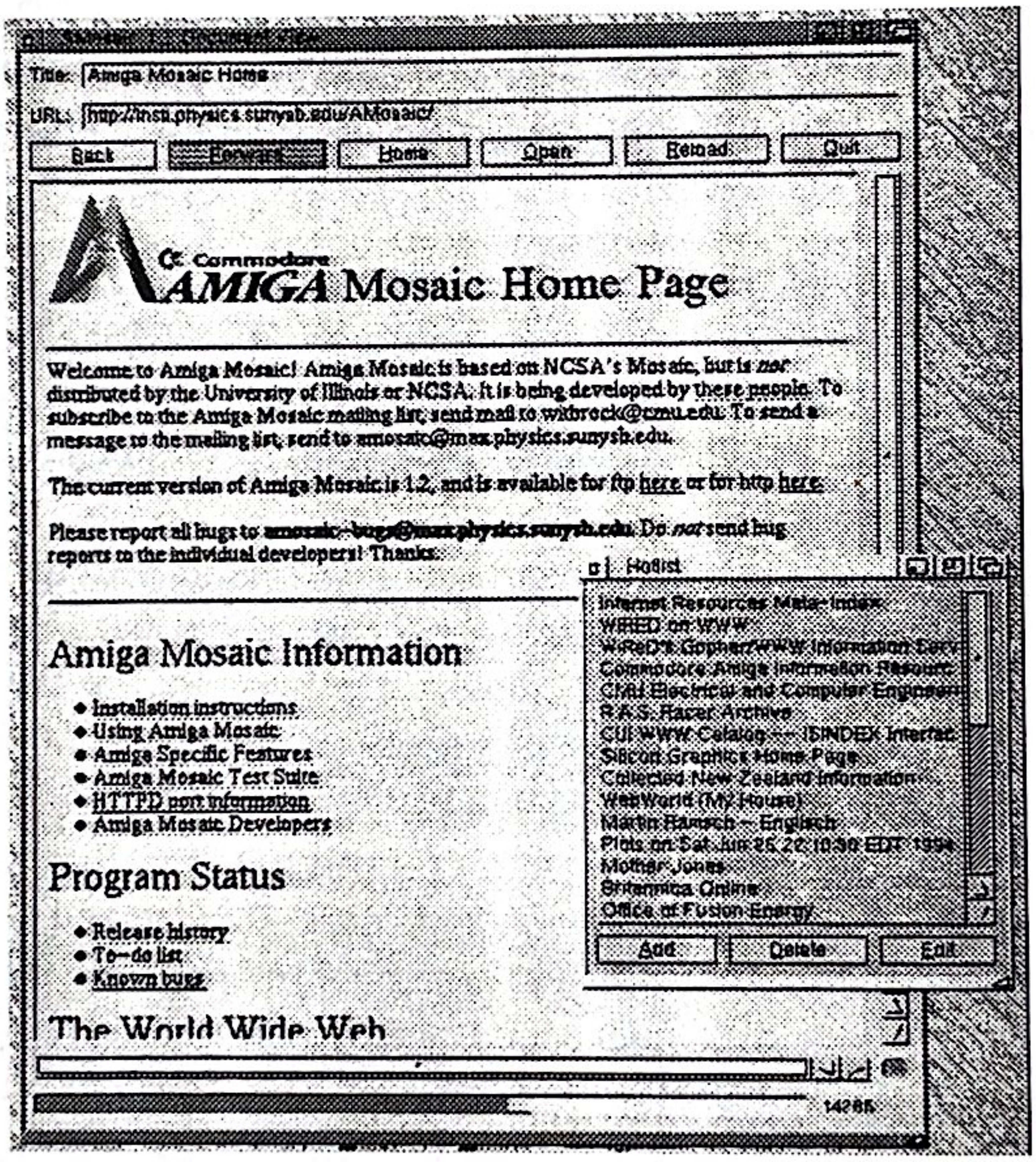
History

WWW was originally conceived by Dr Tim Berners-Lee in 1989 as a means of sharing information between high energy physicists working at CERN in Geneva.

Since then, it has spread to millions of users throughout the world, due in no small way to Mosaic.

Mosaic was created by the NCSA (National Center for Supercomputing Applications) Software Development Group at the University of Illinois. Over the last couple of years, they have created versions of Mosaic for the X Window System, Windows, and the Macintosh.

Mosaic for the Amiga, on the other hand, has no formal link with NCSA, although AMosaic is based on NCSA Mosaic. It has been developed by a group of Amiga users on the Internet: Michael Fischer, Michael Witbrock, Michael Meyer and Steve Dunham.


Title: Amiga Mosaic Home
URL: http://insu.physics.sunysb.edu/AMosaic/
Back
Forward
Home
Open
Reload
Quit
Commodore AMIGA
Hotlist
Internet Resources Meta-Index
WIRED on WWW
WiReD's Gopher/WWW Information Serv
Commodore Amiga Information Resourc
CMU Electrical and Computer Engineeri
R.A.S. Racer Archive
CUI WWW Catalog -- ISINDEX Interfac
Silicon Graphics Home Page
Collected New Zealand Information
WebWorld (My House)
Martin Ramsch -- Englisch
Plots on Sat Jun 25 22:10:30 EDT 1994
Mother Jones
Britannica Online
Office of Fusion Energy
Add
Delete
Edit
14285

Amiga Mosaic Home Page

Welcome to Amiga Mosaic! Amiga Mosaic is based on NCSA's Mosaic, but is *not* distributed by the University of Illinois or NCSA. It is being developed by these people. To subscribe to the Amiga Mosaic mailing list, send mail to witbrock@cmu.edu. To send a message to the mailing list, send to amosaic@max.physics.sunysb.edu.

The current version of Amiga Mosaic is 1.2, and is available for ftp here or for http here.

Please report all bugs to **amosaic-bugs@max.physics.sunysb.edu**. Do *not* send bug reports to the individual developers! Thanks.

Amiga Mosaic Information

- Installation instructions
- Using Amiga Mosaic
- Amiga Specific Features
- Amiga Mosaic Test Suite
- HTTPD port information
- Amiga Mosaic Developers

Program Status

- Release history
- To-do list
- Known bugs

The World Wide Web

AMosaic in action on the Internet.

Web Browsers

Of course, Mosaic isn't the only browser available for the Web. A number of others such as Lynx, Cello and ViolaWWW exist on a variety of platforms, but Mosaic is probably the most polished and definitely the most widely used.

People tend to refer to Mosaic and WWW as though they are the same thing, but this is not the case. Web browsers are completely independent of the data. The

WWW as developed by CERN can be thought of as just a way of structuring data. NCSA Mosaic is one of many browsers which can read that data, interpret it, and display it on screen.

In the same way Commodore developed AmigaGuide, CERN created WWW. If you don't like Multiview (or Mosaic), you can write your own browser.

HTML

The language used to write a page of Web data is called HTML, the HyperText Markup Language. It is essentially a collection of styles used to define the various components of a W3 document. In use, it's quite similar to TeX or LaTeX. Here's a small example:

```
<HTML>
<HEAD><TITLE>This is the title of my document</TITLE></HEAD>
<BODY>

<H1>This is a level one heading</H1>

Here is some normal text. We can have <B>bold</B> text or
words in <I>italics</I>. We can put paragraphs at the end
of our text.<P>

We can include a GIF picture right here:
<IMG SRC="amiga.gif">

We can even make links to other web pages by doing
<A HREF="page.html">this</A>.

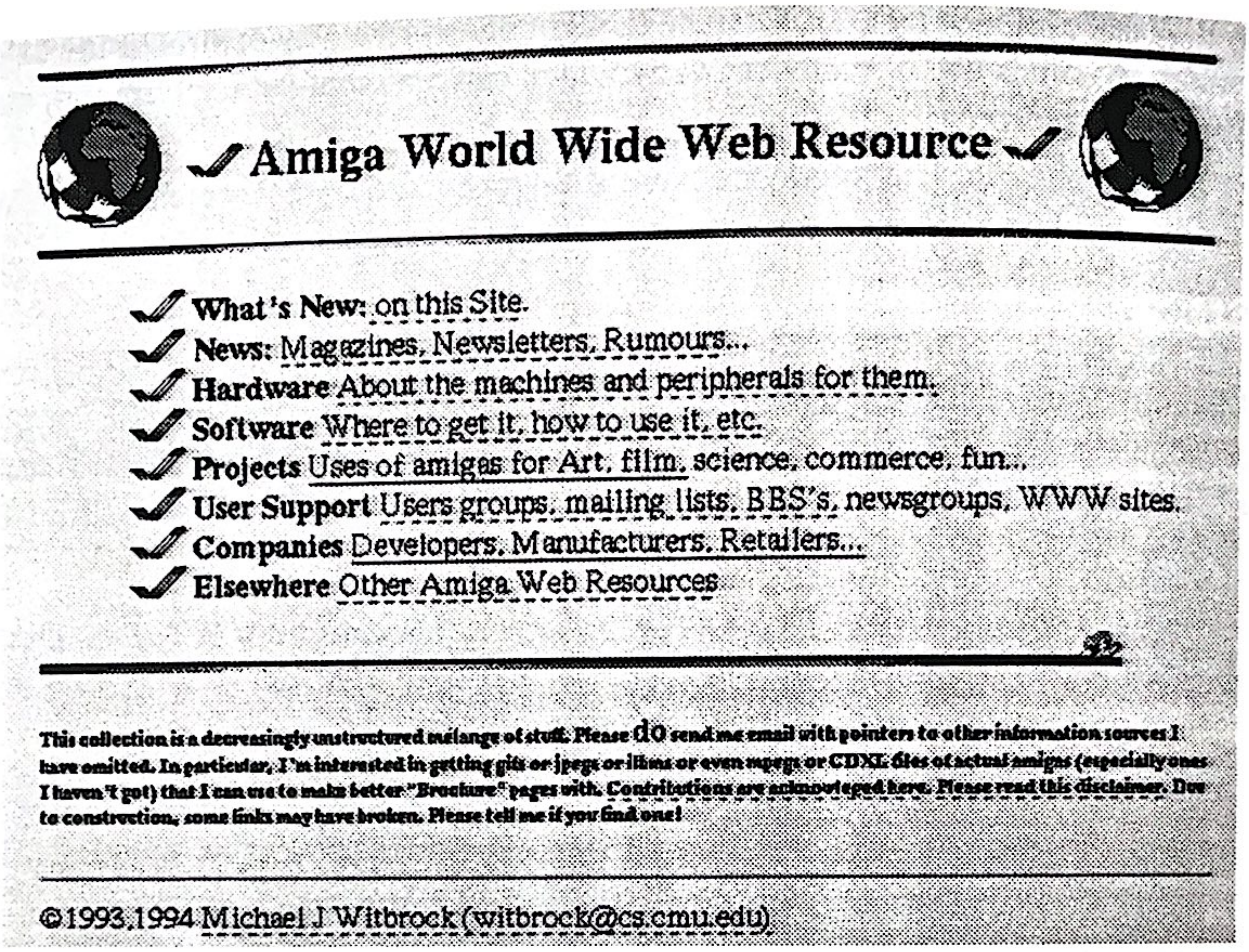
</BODY>
</HTML>
```

HTTP

In order to network all these HTML files on different machines, a protocol is needed to transfer data between the client browser and Web server. Enter HTTP, the HyperText Transfer Protocol.

HTTP is transport protocol independent, which means it can be implemented using any underlying network standard, such as TCP/IP or Novell IPX. Almost all current implementations run over TCP (usually on port 80) hence the requirement for AmiTCP or CBM AS225 software if you want to start net-surfing with AMosaic.

Setting up a Web server is as simple as running a program called HTTPD which is a 'daemon' program that just sits listening on TCP port 80 waiting for incoming



✓ Amiga World Wide Web Resource ✓

- ✓ **What's New:** on this Site.
- ✓ **News:** Magazines, Newsletters, Rumours...
- ✓ **Hardware** About the machines and peripherals for them.
- ✓ **Software** Where to get it, how to use it, etc.
- ✓ **Projects** Uses of amigas for Art, film, science, commerce, fun...
- ✓ **User Support** Users groups, mailing lists, BBS's, newsgroups, WWW sites.
- ✓ **Companies** Developers, Manufacturers, Retailers...
- ✓ **Elsewhere** Other Amiga Web Resources

This collection is a decreasingly unstructured mélange of stuff. Please do send me email with pointers to other information sources I have omitted. In particular, I'm interested in getting gifs or jpegs or ilbms or even mpegs or CDXL files of actual amigas (especially ones I haven't got) that I can use to make better "Brochure" pages with. Contributions are acknowleged here. Please read this disclaimer. Due to construction, some links may have broken. Please tell me if you find one!

©1993,1994 Michael J Witbrock (witbrock@cs.cmu.edu)

The Home page of the Amiga WWW site.

requests. These requests can be as simple as 'GET /' which would request the server's root or home page. As a user, you don't need to know anything about HTTP itself. Your browser sends the commands to the HTTPD server for you.

The URL

One of the innovations which has come with the Web is the URL, the Uniform Resource Locator. The URL, as the name implies, is a uniform way of specifying how resources on the Internet can be located. For example:

NCSA's W3 Server:

`http://www.ncsa.uiuc.edu/`

The Amiga WWW home page:

`http://www.cs.cmu.edu:8001/Web/People/mjw/Computer/Amiga/MainPage.html`

The location of Amiga Mosaic:

`ftp://max.physics.sunysb.edu/pub/amosaic/Mosaic_1.2_AmiTCP.lha`

A WWW browser accessable via telnet:

`telnet://info.cern.ch`

My home page on the Web!

`http://www.broadcom.ie/~kj/`

The :8001 in the Amiga WWW home page URL means that browsers should open a connection to the TCP port 8001 on `www.cs.cmu.edu` instead of 80, the default HTTP port.

Web Growth

In July 1994, Web traffic was ranked number 4 on the American NSFNET backbone, with over 1000 terabytes of web data transferred during the month. And if you think that's a lot of data, think again—it only accounted for 6.5% of the total July NSFNET backbone traffic!

No one knows for sure just how many WWW servers there are out there, but CERN maintain a list of registered Web servers. When people set up a new server, CERN encourage them to register so they can keep some sort of handle on the numbert of servers out there. At the time of writing, there were almost 2500 servers listed worldwide. In reality, the real total is probably almost double this, as many people either don't register with CERN or have multiple servers hanging off one link on CERN's page.

The Future

In July 1994, CERN and MIT announced the W3 Organization, an initiative to further development and standardization of the Web. Dr Martin Bangeman, the Commissioner of the European Union in charge of industrial policy, information technologies and telecommunications commented: "The European Union intends to support this cooperative activity as an important step toward the Global Information Society".

It seems the Web has come a long way from the early days in the research labs and universities. Today, Mosaic is the most exciting tool available for exploring the Internet. If you're looking for an on-ramp to the much hyped Information Super-Highway, then look no further.

Diary Dates

Here's the schedule for meetings this Autumn. Make a note in your diary!

2 Sep	First meeting after the summer. Demos of VLab and Internet.
16 Sep	Time to start thinking about articles for the October Newsletter.
30 Sep	Last meeting of the year—time to resubscribe.
14 Oct	Annual General Meeting. Make sure you turn up!
28 Oct	First meeting of the new year. Will it be the last Friday meeting?

CUGI Library

by Magnus Byne

The CUGI library has a large selection of Amiga books, including a range of Abacus books covering most aspects of the Amiga, and Commodore's Rom Kernel Manuals (essential if you are doing programming). In addition, there are reference books for the C64 and C128, along with general programming and computer books. We also have a good selection of videos covering the Amiga. In addition there are many CD-ROMs which can be borrowed. If you don't have a CD-ROM drive (yet!) the PD software can be copied onto floppies at meetings.

You can borrow books, videos and CDs from the CUGI library at any meeting, provided you have your membership card. They must be returned by the following meeting, but if nobody else wants to borrow them, you can renew them for a further two weeks. As people still persist in not returning books on time we have been forced to impose a fine of 50p on overdue books.

Here's a list of what's currently available (new titles may have been added by the time you read this).

Abacus

AmigaDos Inside and Out
Amiga for Beginners
Amiga Disk Drives Inside and Out
Amiga Guide for Advanced Programmers
Amiga Internals
Amiga Tricks and Tips
Desktop Video Guide

Commodore Reference Manuals

Amiga ROM Kernel, Libraries 2.0
Amiga ROM Kernel, Devices 2.0
Amiga ROM Kernel, Includes and Autodocs 2.0
Amiga ROM Kernel, Style Guide

Amiga ROM Kernel, Libaries and Devices 1.3
Amiga ROM Kernel, Includes and AutoDocs 1.3
Amiga ROM Kernel, Hardware Refernce Mannual 1.3

Using the System Software 2.0
AmigaDos Manual 3rd Edition

The C Language

C Quick Reference

New C Primer Plus

The C Programming Language (K&R), 2nd edition

The C Library

Programming in C

General

Amiga Applications

Beginners Guide to the Amiga

Amiga Format Book

The Amiga System

AmigaDos

The Anatomy of the A590

ICPUG Newsletters

Graphics

Amiga Artist

Amiga Vision

Inside Amiga Graphics

Using Deluxe Paint (V2)

Video Toaster User Magazines

Programming

Mapping the Amiga

Amiga Programmers Handbook

MC68881/2 Motorola Data Book

Microcomputer Puzzles

68000 Pocket Book

Golden Oldies

C64 Programmers Reference Guide

C128 Programmers Reference Guide

C64 Service Manual

C128 Service Manual

Advanced C64 Machine Code

The Anatomy of the C64

The Anatomy of the 1541

Videos

History of the Amiga

The Deluxe Paint IV Video Guide

Amiga Animation Video Volume 2

CU Amiga's guide to Amiga Video

Space Wars

Hardware

The CUGI library also has the following hardware available for loan:

- Audio Sampler
- Video Backup System
- Modem (2400 bps)
- Video Digitizer
- Power Scanner

You need to be a member of the club for at least six months before you are entitled to borrow any hardware items. For the Audio Sampler, the Video Backup System and the Modem, there is a rental charge of £2 and a £5 deposit. For the other items, there is a rental charge of £3 and a £7 deposit. For the video digitizer the rental is £3 and the deposit is £10.

The new interface unit and software have arrived for the Scanner, and it can now be borrowed from the library again. However as this is a delicate and expensive item, there is a deposit of £20. Please remember that when you borrow hardware from the club, everyone else in the club relies on you to treat their investment with respect, so please be careful and read the instructions.

For more information contact me at any club meeting.

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